

CASE REPORT

Epidermoid cyst of submandibular region

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ABSTRACT

Epidermoid cysts are rare, slow-growing, benign, developmental cysts that are derived from abnormally situated ectodermal tissue. Epidermoid cysts may grow anywhere on the body and about 7% of them are located in the head and neck. These cyst arise from traumatic implantation of epithelium or entrapment of epithelial remnants during embryonic fusion. Histopathologically, they are lined by stratified squamous epithelium and lumen without any skin appendages. Here we present a case of epidermoid cyst occurring in sub-mandibular region.

Key words: Dermoid cyst, epidermoid cyst, skin appendages

INTRODUCTION

Epidermoid cysts are rare, slow-growing, benign, developmental cysts that are derived from abnormally situated ectodermal tissue. It is defined as "A simple cyst lined with stratified squamous epithelium and lumen is filled with cystic fluid or keratin and no other specialized structure."^[1]

Epidermoid cysts may grow anywhere on the body and about 7% of them are located in the head and neck, with the oral cavity accounting for only 1.6%. Intraorally, it is a benign slow growing and painless entity which is usually located in the submandibular, sublingual and submental region.^[2-4] They can cause symptoms of dysphagia and dyspnea. Epidermoid cysts can occur at any age from birth to 72 years, they usually become apparent in patients between 15 to 35 years. Males are more commonly affected and may present as small or large masses.

Epidermoid cysts are benign pathologies that can occur anywhere in the body, predominantly seen in areas where embryonic elements fuse together. Most cases have been reported in the ovaries and the testicles (80%), with head and neck accounting for 7%.^[2] Dermoid and epidermoid cysts in the mouth are uncommon and comprise less than 0.01% of all the oral cysts. Majority of them occur in sublingual region, but there are rare case reports of occurrence in other sites. The

origin of epidermoid cysts is believed to be from entrapment of epithelial remnants during midline closure of the bilateral first and second branchial arches.^[5]

CASE REPORT

A 27-year-old male, reported to the clinic with a mild swelling on the left side of face [Figure 1]. The swelling was diffuse, and of six months duration. It initially started as a small swelling which gradually increased to present size. Patient had no history of pain in this mass. His past medical and dental history was not relevant too. On examination, extra orally swelling was present on the left sub-mandibular region. The swelling was oval in shape, 5 × 3 cms in dimension. No symptoms of pain and tenderness over the swelling seen. The swelling was freely movable and was not attached to the underlying tissues. Overlying skin was pinchable. Fine needle aspiration cytology (FNAC) of the lesion was done and the smear stained with hematoxylin and eosin revealed mucin and keratin which was very non-specific. An excisional biopsy [Figure 2] of the entire mass was done. The specimen received was dirty brown in color, it was a soft tissue mass, with 5 × 3 × 2 cms in dimension. On palpation it had dough like consistency. On grossing, it had a thin walled capsule surrounding, with a cheesy white material inside [Figure 3]. Smears were made with the cheesy material and stained with H and E. It revealed few squamous cells with mild hyperchromatic nuclei. Histopathology of the specimen revealed cystic lining lined by stratified squamous epithelium and connective tissue showed keratin and adipose tissue [Figures 4 and 5] suggestive of epidermoid cyst.

DISCUSSION

Epidermoid and dermoid cysts are rare, benign lesions found throughout the body, with 7% occurring in the head and neck area, 1.6% of which occurs in the oral cavity. Of all the oral

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Figure 1: Swelling on the left side of face

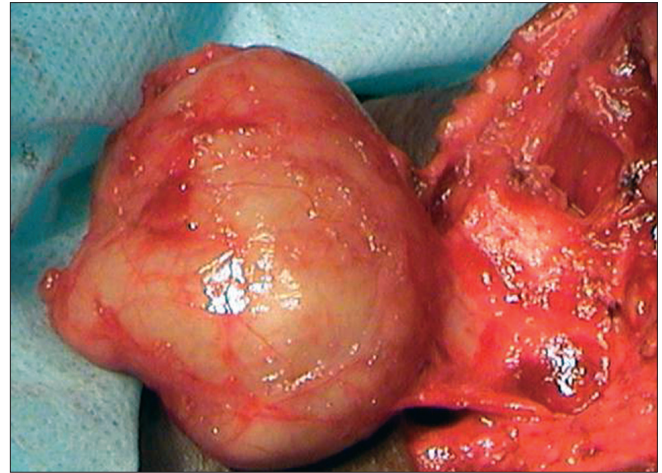


Figure 2: Excisional biopsy of the cyst



Figure 3: Thin walled capsule containing cheesy white material within it

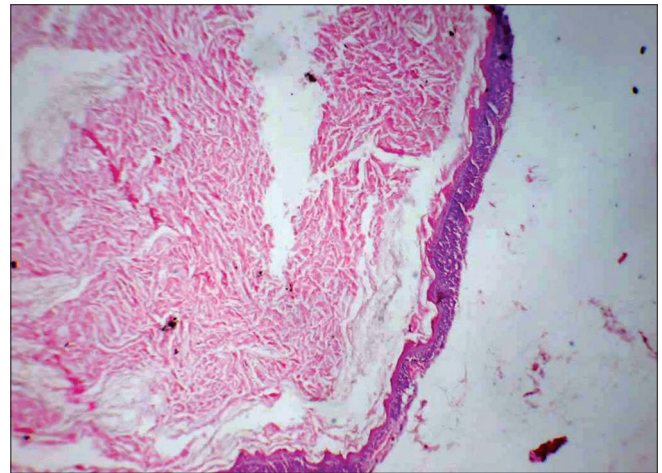


Figure 4: Section shows cystic cavity lined by keratinised stratified squamous epithelium, with lumen containing excess amount of keratin. Connective tissue capsule containing chronic inflammatory cells (no skin appendages seen) (H and E, 4x)

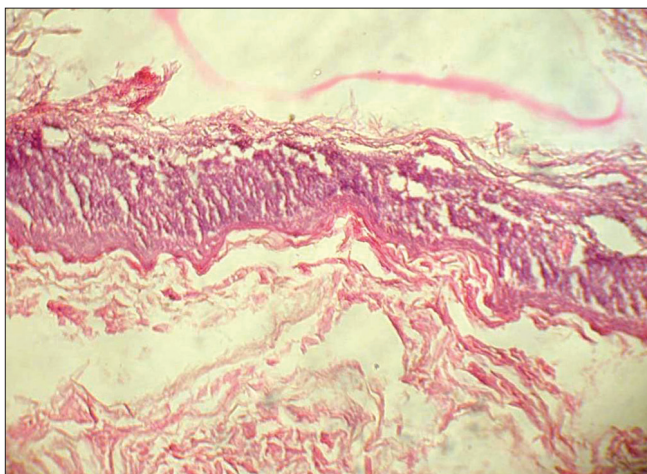


Figure 5: High power view of the cystic lining and connective tissue capsule containing chronic inflammatory cells (H and E, 40x)

cysts, dermoid and epidermoid cysts account for only 0.01%. A simple cystic lesion without any skin appendages is termed as epidermoid cyst. Whereas, dermoid cyst are cysts with epithelial

lining enclosing skin appendages such as hair, hair follicles, sebaceous, and sweat glands. The etiology of epidermoid cyst are is due to follicular infundibulum, traumatic implantation of epithelium or entrapment of epithelial remnants during embryonic fusion. In case of dermoid cyst, it is only due to entrapment of epithelial remnants during embryonic fusion. Dermoid cysts are seen only in areas of fusion especially midline swellings, whereas epidermoid cysts can occur anywhere in the body.^[6] Epidermoid cysts may be categorized as congenital or acquired based on their origin, although there is no disparity between the two either clinically or histologically. They may be found in any age group but show preponderance between 15-35 years of age with male predilection.^[6,7] Although, floor of the mouth in the midline is most favored site, occasional occurrence involving the buccal mucosa, tongue, lips, uvula, temporomandibular joint dermal graft, intradiploic, intracranial, and intraosseous location within the mandible and maxilla also have been reported in literature. Due to these sublingual swellings in the floor of the mouth symptoms of dysphagia, dyspnea and dysphonia may occur due to upward

displacement of tongue.^[7] Epidermoid cysts typically feel “dough like” on palpation, although they may be fluctuant and cyst like based on consistency of the luminal contents that may range from a cheesy, sebaceous to liquefied substance. Treatment comprises total surgical excision without any rupture because spillage of the cystic contents to the underlying fibrovascular structures can cause post operative inflammation.^[8] Recurrences of these cysts are very rare.

CONCLUSION

Epidermoid cysts of head and neck origin are quite a rare entity. Here, we report a simple case of epidermoid cyst which clinically appeared as a lipoma, later turned out to be epidermoid cyst.

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